50132 / 1.1 / 2021-06-21 / MH / EU-NA

Product Information LD3xiC™ **FOOD**

Load Disc LD3xiC™

Application/Specified usage

- High-accuracy, stainless steel **load disk for heavy-duty in-process tanks and bulk storage vessels**, particularly suitable for use on vibrating devices such as mixing and blending vessels, surge hoppers and vessels with agitators.
- The "Cage" mounting fixture compensates in 3D for structural misalignment and offsets side loads due to positioning errors, thermal tank expansion, etc., while providing a high-strength structural support.
- Level control through dynamic, continuous and accurate weight measurement
- Standard load ranges from 5,000 kg (11,000 lb) to 10,000 kg (22,000 lb)
- Thanks to the outstanding measuring accuracy of 0.03 % even smallest weight variations are detected
- Weighing technology from the proven Kistler-Morse semiconductor strain gauge technology guarantees long-life operation

Application Examples

- Process vessels with agitator
- Mixing and blending devices
- Ingredient exchange containers
- Bioreactors
- Horizontal tanks
- Tanks for dry and bulk material

Features

- Simple, self-contained and rugged design in brushed finish withstands rigorous washdown or corrosive environments
- Single footprint over all capacity ranges allows for a common system design
- The Load Disc sensor unit can be installed after the mounting of the Cage, making the set-up, access and replacement more easy and flexible
- The 3D-compensation of the Cage guarantees perfect measurement results even with shear forces due to transversal agitator pressure, unbalanced filling or thermal expansion of horizontal tanks
- Fusion-bonded gauges provide a robust and rugged load cell
- Protection class IP68 (NEMA-6P) and the solid the design provide superior protection in wash-down, corrosive or even submerged environments
- Full-Bridge Strain Gauge technology

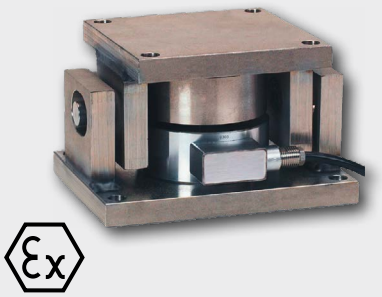
Options/Accessories

- Pre-fabricated cable
- Analog output via universal universal transmitter "SG-45"

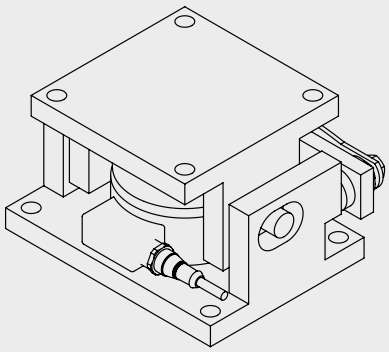
Communication

5...15 V DC

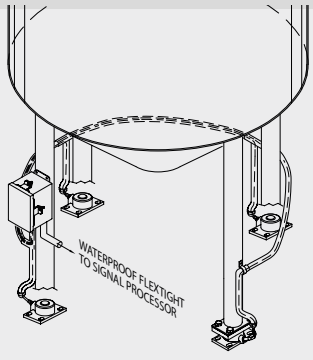
LD3xiC™



LD3xiC with „Cage" fixture hardware



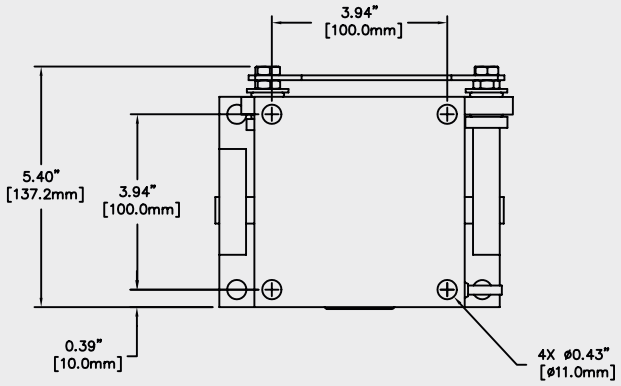
Typical Load Disc installation on vessel legs



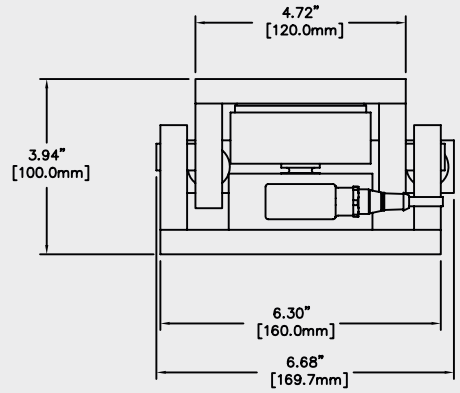
Specification		
Technical Features	Excitation Voltage - Operating Range Maximum Current Impedance Recommended Supply Voltage Compression Functional Integrity Humidity Protection Class Materials (Load Cell unit and Cage) Electrical connection Cable Shipping Weight	5...15 V DC Full-Bridge 16 mA @ 10 V DC excitation 700 Ω ± 1 % 10 V DC 3 x rated load 1.5 x rated load (compression) 100 % IP68 / NEMA-6P Stainless steel 1.4542 (17-4 PH 900), Brushed Finish Sealed cable attached 4-conductor, shielded, with tinned pigtail (5 m (16 ft)) 3.9 kg (18.7 lb)
Measurement Accuracy	Non-Linerity/Hysteresis Combined Return to Zero Zero Balance Rated Output	0.03 % rated load 0.026 % rated load / > 30 min. 1 % rated capacity 2 mV/V ± 0.1 %
Deflection	All models	0.1...0.2 mm
Temperature ranges	Ambient Temperature Range Temperature Sensitivity Storage Temperature Range	-10...40 °C (14...104 °F) (0.0017 %/°C (0.00094 %/°F) -20...80 °C (-4...176 °F)
Base Plate Size (length x width) **Top Plate Size (length x width)** **Installed Height**	 LD3xiC with Cage	160 x 120 mm (6.30 x 4.72 in) 120 x 120 mm (4.72 x 4.72 in) 100.0 mm (3.94 in)
Authorizations	All models	ATEX

Accuracy table		
Model	**Rated Load**	**Tolerance / Accuracy**
11000	= 5,000 kg	± 1.5 kg
16500	= 7,500 kg	± 2.25 kg
22000	= 10,000 kg	± 3.0 kg

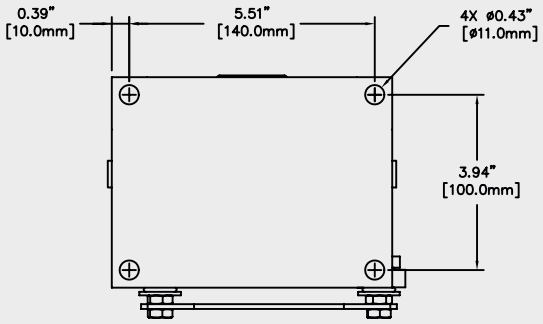
LD3xiC with Cage, Top Plate dimensions



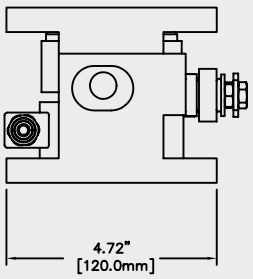
LD3xiC with Cage, Lateral dimensions



LD3xiC with Cage, Base Plate dimensions



LD3xiC with Cage, Lateral dimensions



Transport/Storage

- Do not store outside
- Store in an area that is dry and dust-free
- Do not expose to corrosive media
- Protect against solar radiation
- Avoid mechanical shock and vibration
- Storage temperature -20...80 °C (-4...176 °F)
- Relative humidity max. 98 %

Cleaning/Maintenance

- When using a pressure washer, do not point the nozzle directly at the electrical connections.

Reshipment

- Sensors shall be clean and free of media or heat-conductive paste and must not be contaminated with dangerous media!
- Use suitable transport packaging only to avoid damage of the equipment!

Conventional usage

- Not suitable for applications in safety-relevant system parts (SIL).

Standards and guidelines

- Compliance with the applicable regulations and directives is mandatory.

Note on CE

- Applicable directives:
  Electromagnetic Compatibility Directive 2014/30/EU
- Compliance with the applicable EU directives is identified by the CE label on the product.
- The operating company is responsible for complying with the guidelines applicable to the entire installation.

Disposal

- Electrical devices should not be disposed of with household trash. They must be recycled in accordance with national laws and regulations.
- Take the device directly to a specialized recycling company and do not use municipal collection points.

Order Code

LD3xiC Load Disc with Cage

Load rated

11000	5,000 kg (11,000 lb)
16500	7,500 kg (16,500 lb)
22000	10,000 kg (22,000 lb)

Cable

X	5 m (16.4 ft) Pigtail Cable Attached

Finish

X	Brushed Finish

Hardware

C	Caged Hardware (Standard)
J	Caged Hardware with Jacking Bolts
N	No Hardware (Load Cell Unit replacement)

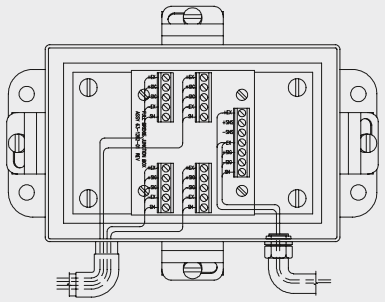
LD3xiC	**11000**	**X**	**X**	**C**

Accessories

One cable 5 m (16.4 ft) Pigtail is supplied with each LD3xi. The caged version LD3xiC does NOT require adapter plates.

JB-F-P1	Junction box Full Bridge, No trim pods, Plastic, 1 hole entry
JB-F-P2	Junction box Full Bridge, No trim pods, Plastic, 2 hole entry
JB-F-A4	Junction box Full Bridge, No trim pods, Aluminium, 4 hole entry
JB-F-S1	Junction box Full Bridge, No trim pods, Stainless Steel, 1 hole entry
JB-F-S2	Junction box Full Bridge, No trim pods, Stainless Steel, 2 hole entry
JB-T-P	Junction box Full Bridge, With trim pods, Plastic, 5 hole entry
JB-T-A	Junction box Full Bridge, With trim pods, Aluminium, 5 hole entry
JB-T-S	Junction box Full Bridge, With trim pods, Stainless Steel, 5 hole entry

Junction Box (various models)



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